



Arizona Vaccine News

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VACCINE NEWS

Arizona Physicians May Give Immunizations to Household Members of Patients

- A physician is now allowed by statute to administer vaccines to household members of a patient.
- Senate Bill 1176 states that it is within the definition of professional conduct for a physician to administer "prescriptions written or prescription medications issued for administration of immunizations or vaccines listed in the United States Centers for Disease control and Prevention's recommended immunization schedule to a household member of a patient."
- The new language will be posted on line soon as Arizona Revised Statutes (ARS) 32-1401 (26)(ss)(vi) <http://www.azleg.state.az.us/ArizonaRevisedStatutes.asp>

Adenovirus Type 4 & Type 7 Vaccine Approved for Use in the Military

- Military recruits are at high risk for adenovirus infection. During the 1950s and 1960s up to 10% of military recruits were infected. Adenovirus was responsible for 90% of recruit hospitalizations for pneumonia.
- A live, oral adenovirus vaccine was administered to all military recruits starting in 1971, but it was discontinued in 1996.
- On March 16, 2011, the Food and Drug Administration (FDA) approved a live, oral vaccine for Adenovirus Type 4 and Type 7 for use in the military for ages 17-50 years old.
- A single dose of this vaccine is given as two tablets: one tablet for Type 4 adenovirus and one tablet for Type 7 adenovirus. Neither of the viral types in the adenovirus vaccine has been attenuated.
- Although adenovirus vaccine viruses are shed in the stool, no vaccine virus has been found in the stool after 28 days, and no vaccine virus has been detected in the throat.
- Since persons vaccinated with Adenovirus Type 4 and Type 7 vaccine may shed vaccine virus in their stools for up to 28 days, it is important to use proper personal hygiene to minimize the risk of vaccine virus spreading to unvaccinated people.
- The adenovirus vaccine package insert advises vaccine recipients to exercise caution around children less than 7 years old, immune compromised people, and pregnant women.

For more history on the use of adenovirus vaccine in the military, see *Morbidity and Mortality Weekly Report (MMWR)* July 6, 2011 at <http://www.cdc.gov/mmwr/PDF/wk/mm5026.pdf>

For the FDA package insert for adenovirus vaccine, see

<http://www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM247515.pdf>

FDA Licenses an Intradermal Influenza Vaccine

- FDA has approved Fluzone® Intradermal, a trivalent influenza vaccine made by Sanofi Pasteur for adults ages 18-64 years. It uses an ultra-fine needle that is 0.06 inches in length and delivers 0.1 mL of vaccine. The vaccine uses 40% less antigen but is as effective as the 0.5 mL dose of intramuscular Fluzone®.
- Fluzone® Intradermal will be supplied as a single dose, preservative-free, prefilled syringe and will be available in the U.S. for the 2011-2012 influenza season.
- As with other influenza vaccines, adults will need only one yearly dose.

For more information, see CDC's Questions & Answers document at

http://www.cdc.gov/flu/protect/vaccine/ga_intradermal-vaccine.htm and the package insert at <http://www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM195479.pdf>

Rare Cases of Particulate Matter in Merck Vaccines

- Merck sent a letter to all of their customers on May 16, 2011 to notify them of rare instances where vials of vaccine have contained brown particles. The particles came from plastic packaging used to cover empty vials during shipments.
- Potency and sterility of these vaccines are not expected to be impacted.
- Vaccines containing small quantities of particulate matter may potentially lead to injection-site reactions if the material is not noticed prior to injection. Vaccines should always be inspected for particulate matter and discoloration prior to use and not used if there is any abnormality.

How to Find Japanese Encephalitis (JE) Vaccine when Children Need It

- JE is the leading cause of vaccine-preventable encephalitis in Asia and the western Pacific.
- The inactivated mouse brain-derived Japanese encephalitis (JE) vaccine is the only JE vaccine that is licensed for use in children in the United States. However, it is no longer available.
- There is an FDA-approved inactivated Vero cell culture-derived JE vaccine for adults aged > 17 years old [Ixaiaro®].
- If a child will be traveling to an at-risk area for JE, there are three options to get them vaccinated:
 1. Enroll the child in a JE vaccine clinical trial.
 2. Give them Ixaiaro® off label.
 3. Receive JE vaccine at an international traveler's health clinic in Asia.

For more details on JE vaccination in children and recommendations for a booster dose of JE vaccine, see *MMWR* May 27, 2011 <http://www.cdc.gov/mmwr/PDF/wk/mm6020.pdf>

VACCINE-PREVENTABLE DISEASES NEWS

Measles in the United States, January-May 20, 2011

- The United States averaged only 56 measles cases a year during the period of 2001-2008. However, there have been 118 cases of measles in the United States reported to the Centers for Disease Control and Prevention (CDC) in the first 19 weeks of 2011.
 - 89% were unvaccinated for measles
 - 40% were hospitalized
 - 89% were associated with importation from other countries (mostly due to travel to or visitors from Europe and South-East Asia).

For more details, see *MMWR*, May 27, 2011 at

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6020a7.htm?s_cid=mm6020a7_w

A Confirmed Case of Measles in Arizona

- A traveler from Europe visited Las Vegas, the Grand Canyon, Lake Powell, Monument Valley, and Bryce Canyon between May 22-27.
- Measles is highly contagious via airborne spread.
- The incubation period for measles after exposure is 7-18 days. Therefore, Arizona physicians need to consider the diagnosis of measles in their febrile patients with rash and report any suspected cases to their local health department.

Consider the Diagnosis of Measles in Febrile Patients

- Measles symptoms start with a prodrome of high fever along with the “**Three C’s**” (Cough, Coryza, and Conjunctivitis) and the patient feeling moderately ill.
- People with measles do not develop a rash until after 3-5 days of prodrome.
- The measles rash starts on the face and upper body as discrete raised red spots. Over the next few days, the rash progresses down the body while it is becoming more coalescent on the face.
- A patient with suspected measles should immediately be put in airborne isolation.

For more information on diagnosing and treating measles, see

<http://www.cdc.gov/measles/index.html>

Pertussis in Arizona January-May 2011

- Pertussis cases continue to be reported in Arizona. There have been 335 reported cases of pertussis in Arizona between January-May 2011. This is in contrast to 180 cases in the same period between January-May 2010.
- Pertussis cases in Arizona in the entire year of 2010 were higher than in 2009. In 2010, there were 546 reported cases of pertussis in Arizona in contrast to 258 cases in 2009.
- Surges in pertussis cases tend to occur every 3-5 years. In 2005, Arizona had a declared pertussis outbreak with 1,108 reported cases.
- Serology for pertussis is NOT helpful for the diagnosis of acute pertussis infection. The recommended laboratory tests for pertussis are culture and/or polymerase chain reaction (PCR).
- Suspected or confirmed cases of pertussis should be reported to the local health department within 24 hours. Do not wait for laboratory confirmation before reporting.
- Remember that a negative laboratory test for pertussis does not exclude pertussis as the cause for the patient's coughing, since there can be false negative results.

LITERATURE ON VACCINES AND VACCINE PREVENTABLE-DISEASES

Association of Maternal Influenza and Fever with Congenital Heart Defects

- There were significant associations between fever and influenza and specific congenital heart defects (i.e. right-sided obstructive defects and atrioventricular septal defects in infants with Down syndrome).
- Maternal antipyretic use in the setting of fever or influenza tended to decrease these associations.

See the abstract from *Journal of Pediatrics*, June 2011 at

<http://www.ncbi.nlm.nih.gov/pubmed/21256509>

Maternal Influenza Vaccination Lowers Premature Births

- Infants born to influenza *vaccinated* women during 8 weeks of widespread influenza activity were approximately 70% less likely to be premature than those born to *unvaccinated* mothers.
- Infants born to influenza *vaccinated* women during periods of widespread influenza activity had 69% lower odds of being small for gestational age (SGA) than infants born to *unvaccinated* women.

For more information, see PLoS Medicine published May 31, 2011:

<http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1000441>

Less Pediatric Cancer Risk in Areas with Higher Immunization Coverage

- Children born in Texas counties with higher hepatitis B vaccine coverage had lower odds of all cancers as well as lower odds of acute lymphoblastic leukemia (ALL).
- Higher coverage rates of the following vaccines were also associated with lower odds of ALL: *Haemophilus influenzae* type b (Hib), inactivated polio vaccine (IPV), and completion of the 4.3.1.3.3 vaccination series (4 DTap, 3 IPV, 1 MMR, 3 Hib, 3 hepatitis B vaccines).

See the abstract at *Journal of Pediatrics*, January 2011

[http://www.jpeds.com/article/S0022-3476\(10\)01048-6/abstract](http://www.jpeds.com/article/S0022-3476(10)01048-6/abstract)

Immunizations One of Decade's Greatest US Public Health Achievements

- From 2001-2010 there have been substantial declines in cases, hospitalizations, deaths, and health-care costs associated with vaccine-preventable diseases.
- The current childhood immunization schedule prevents approximately 42,000 deaths and 20 million cases of disease per every birth cohort, with net savings of nearly \$14 billion in direct costs and \$69 billion in total societal costs.
- Due to the introduction of new vaccines, there are now 17 diseases targeted by U.S. immunization policy.

For more details see *MMWR* May 20, 2011 at

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6019a5.htm?s_cid=mm6019a5_w

ADHS REPORT

Vaccine for Children (VFC) Program and Meningococcal Vaccines

- FDA has lowered the age for which Menactra®, Sanofi Pasteur's meningococcal conjugate vaccine, can be administered. Previously, it was FDA licensed for ages 2-55 years old. Now it is licensed for 9 months-55 years old. For the package insert, see <http://www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM131170.pdf>
- Novartis' meningococcal conjugate vaccine, Menveo®, remains licensed for ages 2-55 years old.
- The most recent Vaccine for Children (VFC) resolution for meningococcal vaccination only updates guidance for the new adolescent recommendations. There is no new VFC guidance yet about lowering the age for Menactra®. Therefore, **at the present time, VFC meningococcal vaccine cannot be used in children under 2 years old.**
- VFC meningococcal vaccine can be used for adolescents and for children ages 2-10 years old who have illnesses that put them at risk for meningococcal disease. See: <http://www.cdc.gov/vaccines/programs/vfc/downloads/resolutions/1010mening-mcv-508.pdf>

Clarification of Varicella Vaccine Rules for 2011-2012 School Year

- As of 9/1/2011, students enrolling in childcare, preschool or school for the first time are required to present proof of immunity to varicella by showing documentation of varicella immunization or by having a valid exemption. Valid exemptions would be laboratory evidence of immunity, medical reasons to not receive the vaccine, physician diagnosed varicella, exemptions due to personal beliefs in schools, or exemptions due to religious beliefs in childcare or preschool settings.
 - Providers may receive more requests from parents for varicella immunizations, laboratory tests to verify protective varicella antibodies, or providing exemptions.
- Students attending childcare, preschool or school prior to 9/1/2011 with parental recall of chicken pox disease are allowed to continue attendance without further proof of immunity.

For more details, see *Arizona Administrative Code* R9-6-702 and R9-6-706

http://www.azsos.gov/public_services/Title_09/9-06.htm

Dr. James Cherry, Pertussis Expert, to Speak at ADHS Conference in July

- Dr. James Cherry, UCLA professor of pediatric infectious diseases and expert on pertussis, will be speaking on “Pertussis and Pertussis Vaccines” at the ADHS 2011 Infectious Disease Training and Exercise..
- Dr. Cherry has played a central role in responding to the pertussis outbreak in California in 2010. http://www.aap-ca.org/clinical/pertussis/pertussis_in_young_infants.html.
- The ADHS 2011 Infectious Disease Training and Exercise will take place July 27-29, 2011. Dr. Cherry’s presentation will be from 8:00-8:55 a.m. on Thursday, July 28 at the Memorial Union at Arizona State University (ASU) in Tempe, Arizona.
- Interested medical professionals may attend only Dr. Cherry’s presentation or the entire conference. There is no fee for the event.
- Registration closes July 15, 2011. A map of ASU and parking is provided when you register. A full agenda of the conference and how to register can be found at <http://www.azdhs.gov/phs/oids/training/2011training.htm>.
- Dr. Cherry’s presentation is being supported by Sanofi Pasteur.

- Please feel free to distribute ADHS’ *Arizona Vaccine News* to any of your partners who may be interested. Past issues of *Arizona Vaccine News* can be found at: <http://www.azdhs.gov/phs/immun/vacNews.htm>